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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,505	10/16/2003	Morris B. Wade	DQIP-139	4313

7590 06/01/2005

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EXAMINER

BEACH, THOMAS A

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,505

Applicant(s)

WADE ET AL.

Examiner

Thomas A Beach

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-17 and 19-34 is/are rejected.
- 7) ☒ Claim(s) 5 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-17, and 19-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Milberger 5,791,418. Milberger shows a running tool 27 and lockdown sleeve 17 assembly for axially fixing upward movement of a tubular hanger with respect to a subsea wellhead housing, the tubular hanger connected to a tubular string extending downward from the subsea wellhead housing into the well, the subsea wellhead housing including an outer latching profile, the assembly having the running tool 27 including (a) a tool latching mechanism 35 for axially connecting the running tool 27 to the subsea wellhead housing, (b) a tool force applicator 45 for exerting a downward setting force after the tool latching member connects the tool to the subsea wellhead housing, and (c) a sleeve latching applicator 45 for moving a sleeve latching mechanism; a lockdown sleeve 17 having a generally cylindrical outer surface and a central bore, the sleeve latching mechanism moveable in response to the sleeve latching applicator 45 for axially connecting the lockdown sleeve 17 to the subsea wellhead housing; and a seal for sealing between the lockdown sleeve 17 and one of the tubular hanger and the wellhead housing in response to the downward force.

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As concerns claim 2, Milberger shows the tool latching mechanism 35 effects radial movement between latched and unlatched positions in response to axial movement of an actuator.

As concerns claim 3, Milberger shows the seal is set by downward motion of the lockdown sleeve 17 relative to the subsea wellhead housing.

As concerns claim 4, Milberger shows the seal is carried to the subsea wellhead housing on a lower end of the lockdown sleeve 17.

As concerns claim 6, Milberger shows the running tool 27 is hydraulically actuated.

As concerns claim 7, Milberger shows the subsea wellhead housing includes an inner profile to receive the sleeve latching mechanism to axially connect the lockdown sleeve 17 of the wellhead housing.

As concerns claim 8, Milberger shows the sleeve latching mechanism is a split ring.

As concerns claim 9, Milberger shows the running tool 27 includes a packer and a fluid passageway for testing sealing integrity of the seal.

As concerns claim 10, Milberger shows an axially moveable piston within the running tool 27 moves the latching applicator 45 to connect the lockdown sleeve 17 to the subsea wellhead housing.

As concerns claim 11, Milberger shows the seal includes a metal to-metal seal.

As concerns claim 12, Milberger shows the seal includes an elastomeric seal.

As concerns claim 13, Milberger shows the lockdown sleeve 17 has an inner profile for receiving a latching mechanism from another tool.

As concerns claim 14, Milberger shows the sleeve includes a sealing profile for sealing engagement with a sealing member positioned within the 10 sleeve.

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As concerns claim 15, Milberger shows a tubular hanger is a casing hanger.

As concerns claim 16, Milberger shows a running tool 27 and lockdown sleeve 17 assembly for axially fixing upward movement of a casing hanger with respect to a subsea wellhead housing, the casing hanger connected to a casing string extending downward from the subsea wellhead housing into the well, the subsea wellhead housing including an outer latching profile, the assembly having: the running tool 27 including (a) a tool latching mechanism 35 for axially connecting the running tool 27 to the subsea wellhead housing, (b) a tool force applicator 45 for exerting a downward setting force after the tool latching member connects the tool to the subsea wellhead housing, and (c) a sleeve latching applicator 45 for moving a sleeve latching mechanism; a lockdown sleeve 17 having a generally cylindrical outer surface and a central bore, the sleeve latching mechanism movable in response to the sleeve latching applicator 45 for axially connecting the lockdown sleeve 17 to the subsea wellhead housing; and a seal for sealing between the lockdown sleeve 17 and the tubular hanger in response to the downward movement of the lockdown sleeve 17 in response to the downward setting force.

As concerns claim 17, Milberger shows the seal is carried to the subsea wellhead housing on a lower end of the lockdown sleeve 17.

As concerns claim 19, Milberger shows the running tool 27 is hydraulically actuated.

As concerns claim 20, Milberger shows the subsea wellhead housing includes an inner profile to receive the sleeve latching mechanism to axially connect the lockdown sleeve 17 of the wellhead housing.

As concerns claim 21, Milberger shows the sleeve latching mechanism is a split ring.

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As concerns claim 22, Milberger shows the running tool 27 includes a fluid passageway through the running tool 27 for relieving fluid pressure.

As concerns claim 23, Milberger shows an axially moveable piston within the running tool 27 moves the latching applicator 45 to connect the lockdown sleeve 17 to the subsea wellhead housing.

As concerns claim 24, Milberger shows the seal includes a metal-to-metal seal.

As concerns claim 25, Milberger shows the lockdown sleeve 17 has an inner profile for receiving a latching mechanism from another tool.

As concerns claim 26, Milberger shows A method of fixing a lockdown sleeve 17 to a subsea wellhead housing for axially fixing upward movement of a tubular hanger with respect to the subsea wellhead housing, the tubular hanger connected to a tubular string extending downward from the subsea wellhead housing into the well, the subsea wellhead housing including an outer latching profile, the method having a running tool 27 including (a) a tool latching and unlatching mechanism for axially connecting the running tool 27 to the subsea wellhead housing, (b) a tool force applicator 45 for exerting a downward setting force after the tool latching member connects the tool to the subsea wellhead housing, and (c) a sleeve latching applicator 45 for moving a sleeve latching mechanism; providing a lockdown sleeve 17 having a generally cylindrical outer surface and a central bore; providing a seal for sealing between the lockdown sleeve 17 and one of the tubular hanger and the wellhead housing in response to the downward force; and lowering the running tool 27, the lockdown sleeve 17 and the seal in open water to the subsea wellhead housing; locking the tool to the

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outer latching profile of the wellhead housing; applying a force to set the seal; moving the sleeve latching mechanism to latch the lockdown sleeve 17 to the wellhead housing; and retrieving the tool to the surface with the lockdown sleeve 17 fixed to the subsea wellhead housing.

As concerns claim 27, Milberger shows the tool latching and unlatching mechanism effects radial movement between latched and unlatched positions in response to axial movement of an actuator.

As concerns claim 28, Milberger shows the seal is set by downward motion of the lockdown sleeve 17 relative to the subsea wellhead housing. As concerns claim 29, Milberger shows the seal is carried to the subsea wellhead housing on a lower end of the lockdown sleeve 17.

As concerns claim 30, Milberger shows the running tool 27 is hydraulically actuated.

As concerns claim 31, Milberger shows the running tool 27 is lowered to the wellhead housing on a wireline.

As concerns claim 32, Milberger shows the running tool 27 is lowered into the well by an ROV.

As concerns claim 33, Milberger shows the running tool 27 includes a packer and a fluid passageway for testing sealing integrity of the seal pressure.

As concerns claim 34, Milberger shows the sleeve has an inner profile for receiving a latching mechanism from another tool.

Allowable Subject Matter

3. Claims 5 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A Beach whose telephone number is 571-272-6988. The examiner can normally be reached on Monday-Thursday, 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 571-272-6998. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9306 for regular communications and 703.872.9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.4198.

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Thomas A. Beach

May 31, 2005

THOMAS A. BEACH
Patent Examiner
Group 3600